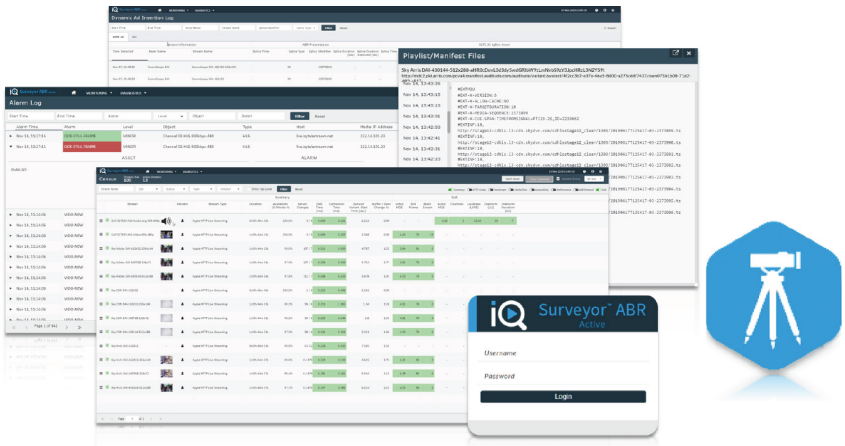


Surveyor ABR Active

Proactive Real-Time Monitoring of OTT Streaming Video

Verifying the availability and quality of Over-the-top (OTT) video is a complex challenge. For Adaptive Bitrate (ABR) streaming, each video asset is published in a variety of bitrates ("asset variants") and in multiple packaging formats to support the plethora of devices customers use to play your video. All of this complexity increases the risk of a poor viewing experience. If your customers experience slow video startup, mid- program buffering, or missing content, you are inviting them to try a competitive offering. The result is churn. Without purpose- built tools you may not even know why the churn occurs.

Surveyor ABR Active is a video quality monitoring solution that uses Synthetic Client technology to verify that your video content – live and on-demand – is available and plays as expected, for every bitrate variant and format. Its active monitoring and scalability is ideal for monitoring intra-CDN and post-CDN, which keeps you informed of content accessibility, protocol conformance, and video streaming performance.

Active monitoring is a great complement to client-based solutions that are designed for monitoring your viewers' actual experience and behaviors. Surveyor ABR Active is a proactive solution, and by using its measurement capabilities combined with targeted scheduling functions, you can monitor the content that is critical to your business success before customers see issues. Proactively monitor any or all bitrates of your content. In different locations in the video delivery chain, you can identify weaknesses in quality and diagnose their sources.

Key Benefits

- Proactive visibility by monitoring asset accessibility, ABR protocol, content quality and streaming performance at any point from the origin server to the edge and the access network
- Ensure a high quality viewing experience measuring content availability for each bitrate variant of a video before end users attempt to initiate streaming.
- Reduce Mean Time to Resolve (MTTR) with the ability to differentiate between geographic, network, or content impairments
- Simplifies understanding of asset health status using key industry metrics to align monitoring results with predicted user experience – Video Start Failure, Derived Video Start Time, Buffer Percentage
- Protects advertising revenue by monitoring the dynamic ad-insertion workflow, ensuring ad opportunities are present and without error.
- Quick video health assessment using probe's HTML user interface with deeper drill-down for identifying, isolating and resolving video quality issues. There is no need to integrate data to a collection device to gain visibility to test results
- Rich control and analytics API to facilitate full integration in to the monitoring ecosystem

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Features

- Active QoS monitoring for ABR video streaming supporting the following packaging formats:
  - Hypertext Transfer Protocol (HTTP) Dynamic Streaming (HDS)
  - HTTP Live Streaming (HLS)
  - Microsoft Smooth Stream (MSS)
  - Dynamic Adaptive Streaming over HTTP (DASH), also known as MPEG-DASH
  - Integrates into ARGUS video management system
- Monitoring methods - 24/7, round-robin scanning, time synchronized daily schedule, and live event techniques
- Quality of Service (QoS) monitoring of ABR video traffic using Synthetic Client technology acting like a client to request any asset variant
- Quality of Experience (QoE) monitoring providing visibility into content quality post- origin server for quality and performance visibility from transcoding and packaging
- User interface with multi-level drilldown into manifest text and per segment statistics
- Specialized Video On Demand methods to automate the validation process and make efficient use of resources
- Stream performance “at a glance” with Streaming Availability, Video Start Failure, Derived Video Startup Time, and Buffer Percentage
- Media Decryption monitoring QoE of DRM encrypted streams - supports Verimatrix (Multi-DRM and ViewRight), Synamedia DRM System, PlayReady, EZDRM and Irdeto encryption
- Real-time error notification with customized threshold configuration and configurable Availability parameters puts emphasis where you want it
- Dynamic Ad Insertion (DAI) monitoring, alarming and Ad thumbnail images for visual validation
- Schedule-based Monitoring to optimize active monitoring using realistic constraints based on server load, bandwidth utilization and Content Delivery Network (CDN) costs
- Closed Caption (EIA-608, EIA-708, SCTE-20) and text track monitoring (WebVTT, TTML) ensures captions and subtitle availability and conformance.
- Monitoring profiles support stream prioritization and differentiation groupings
- Full packet capture buffer based on customized trigger events for in-depth post-event analysis
- Playlist error detection through dynamic parsing and conformance monitoring
- Stream forwarding for remote visual inspection
- Keyless measurement of HLS AES-128 encrypted streams
- Automated Traceroute for network analysis to measure for potential choke points in distribution
- HTTP Application Programming Interface (API)
- Uses Lightweight Directory Access Protocol (LDAP) for user authentication
- The following Audio Codecs are supported: Audio_MPEG2, MP3, AC3, EAC3, AAC, AAC-Main, AAC-LC, HE-AAC

Applications and Uses

For Video Service Providers, Content Owners, and Online Video Platforms (OVPs):

- Verify that all your assets are available from your origin servers, and that the servers are meeting performance expectations
- Continuously scan up to 10K assets in your Video on Demand (VOD) library for availability and QoS
- Establish and monitor Service Level Agreement (SLA) benchmarks for your CDNs

For Online Video Service Platforms (OVSPs), Network and CDN providers:

- Differentiate your service with real-time performance monitoring for your customers’ video assets
- Provide third-party validated video asset performance metrics
- Quickly direct Surveyor ABR Active to troubled video assets to help determine the root cause of a problem and determine if the issue is in the CDN or not
- Identify how specific assets perform in your network to identify and eradicate trouble spots

Technical Specifications

Available in the following an appliance-based and virtual packages:

- Rackmount 1RU Appliance packaged solution is licensable for up to 500 concurrent sessions. Three available NMC options: 4 Port SFP 1G; 4 Port RJ45 1G; 2 Port SFP+ 1G/10G.
- Compact Portable Appliance packaged solution is licensable for up to 100 concurrent sessions. Comes with four 10/100/1000Base-T Ethernet RJ45 port for Monitoring Media.
- The virtual software package is licensable for up to 500 concurrent sessions. Virtual Machine packages available in a VMWare or KVM hypervisor environment. Cloud packages available for AWS AMI environment.

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